

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT OF THE DIRECTOR  
BUREAU OF SAFETY

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ACCIDENT ON THE  
CHICAGO GREAT WESTERN RAILWAY

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MASON CITY, IA.

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OCTOBER 22, 1937.

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INVESTIGATION NO. 2210

-2-

SUMMARY

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Inv-2210

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Railroad:	Chicago Great Western
Date:	October 22, 1937.
Location:	Mason City, Ia.
Kind of accident:	Collision
Train involved:	Passenger : School bus
Train number:	508-C.R.I. & P.Ry:
Engine number:	605 - Diesel
Consist:	3 cars
Speed:	20-30 m.p.h. : 5 m.p.h.
Track:	Tangent; 0.63 percent descending grade.
Highway:	Tangent
Weather:	Cloudy
Time:	3:57 p.m.
Casualties:	10 killed and 19 injured
Cause:	School bus was driven upon a private-road crossing directly in front of approaching train.

Inv-2210

November 17, 1937.

To the Commission:

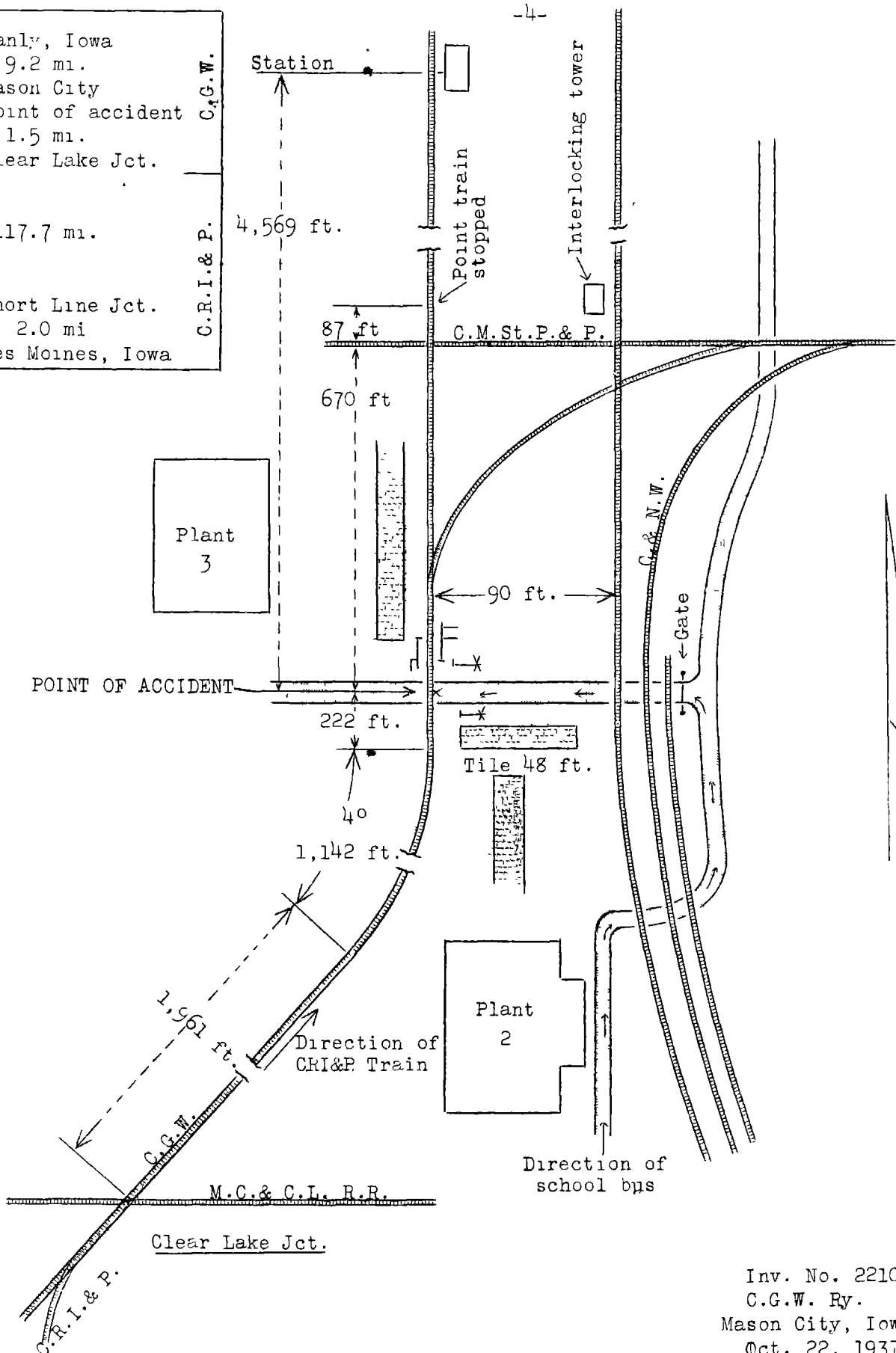
On October 22, 1937, there was a collision between a passenger train of the Chicago, Rock Island & Pacific Railway and a school bus on the tracks of the Chicago Great Western Railway at Mason City, Ia., which resulted in the death of 9 bus passengers and the driver of the bus and the injury of 19 bus passengers. The investigation of this accident was made in conjunction with a representative of the Iowa State Commerce Commission.

#### Location and method of operation

This accident occurred on that part of the Fifteenth District of the Minnesota Division which extends between Manly and Clear Lake Jct., Ia., a distance of 10.7 miles, and is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. Trains of the Chicago, Rock Island & Pacific Railroad, hereinafter referred to as the Rock Island, are operated on this track and are governed by the operating rules of the Chicago Great Western Railroad. The accident occurred at a private-road crossing located 4,569 feet south of the station. Approaching the crossing from the south, the railroad track is tangent for a distance of 1,961 feet, followed by a 40 curve to the left 1,142 feet in length and then a tangent extending 222 feet to the crossing, and some distance beyond. The grade for north-bound trains is generally descending, it being 0.63 percent at the point of accident. Special instructions contained in the C.G.W. timetable restrict the speed of passenger trains through Mason City to 15 miles per hour.

The private road involved extends east and west through the grounds of the Mason City Brick & Tile Company and crosses the track at right angles. This company has several plants in this vicinity; Plant 3 is located northwest of the crossing and Plant 2 is located southeast thereof, and communication between these two plants is provided by the road involved and a road running north and south with which it connects at a point 146 feet east of the crossing. The road involved is of dirt and crushed tile construction, 16 feet in width, and is practically straight for 146 feet east of the crossing. Approaching from the east the grade is slightly ascending for 90 feet and then practically level for a distance of 30 feet to the crossing. This road is used almost entirely by automobiles of employees and trucks hauling the clay products, and all roads within the plant are closed by locked gates between the hours of 6 p.m. and 6 a.m. The crossing is equipped with two cross-bar signs, one located on the north side of the road, and one on the south side at points 13 feet and 18

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|---------------------|-------------|
| ○ Manly, Iowa       |             |
| 9.2 mi.             |             |
| ○ Mason City        | C.G.W.      |
| X Point of accident |             |
| 1.5 mi.             |             |
| ○ Clear Lake Jct.   |             |
| 117.7 mi.           | C.R.I. & P. |
| ○ Short Line Jct.   |             |
| 2.0 mi              |             |
| ○ Des Moines, Iowa  |             |



Inv. No. 2210  
 C.G.W. Ry.  
 Mason City, Iowa  
 Oct. 22, 1937

feet east of the track, respectively; one was placed by the railroad company and the other by the Mason City Brick & Tile Company. A pile of tile 43 feet in length, 9 feet in width and 7 feet in height parallels the road at a distance of about 11 feet to the south and extends to within 15 feet of the track. So far as north-bound trains are concerned this tile completely obstructs the view of the driver of a west-bound vehicle until the vehicle is almost on the crossing.

The weather was cloudy at the time of the accident, which occurred about 3:57 p.m.

### Description

Rock Island Train No. 508, a north-bound passenger train known as the "Rocket", consisted of one combination baggage and dinette car, one coach and one observation-lounge car, all lightweight streamlined equipment, hauled by Diesel engine 605, and was in charge of Conductor O'Neil and Engineer Simpson. This train departed from Short Line Jct., Ia., 119.2 miles from Mason City, at 2:06 p.m., according to the train sheet, 7 minutes late, passed Clear Lake Jct., where it entered the C. G. W. track, 1.5 miles from the station at Mason City, at 3:55 p.m., 5 minutes late, and struck the school bus while traveling at a speed estimated to have been between 20 and 30 miles per hour.

The school bus involved was 22 feet in length, 7 feet 5 inches in width and 7 feet 2 inches in height. The body was of wooden construction with a covering of thin metal, 16 feet 10 inches in length, and was equipped with six double seats on each side, in addition to the driver's seat at the front near the left side. The driver's seat was located about 8 feet behind the front bumper and the view ahead was not obstructed. Safety glass was used throughout and the windshield measured 3 feet 7 inches by 11 inches. The side windows near the front were on angles making the side view good, with the exception of the corner post locations. The bus weighed 6,070 pounds when empty; it was equipped with four-wheel mechanical brakes. The motor was a 3-cylinder Chevrolet, 1933 model, and it had 4 speeds forward and 1 in reverse. The chassis of this bus was owned by R. W. Simpson, and the body by the Renwick Independent School District of Renwick, Ia., 70 miles from Mason City.

This bus, driven by R. W. Simpson, and occupied by 26 high school students and 2 teachers who were making a tour of the industrial plants of Mason City and had just completed a visit to Plant No. 2 of the Mason City Brick and Tile Company, was on its way out of the plant, traveling westward on the private road when it proceeded upon the C. G. W. track at a speed of about 5 miles per hour and was struck by Train No. 508.

The bus was demolished, portions of it being carried for a distance of 757 feet to the point where the train stopped. The train was not derailed and was only slightly damaged.

#### Summary of evidence

Engineman Simpson, of Train No. 508, stated that an air-brake test was made before leaving Des Moines and the brakes worked satisfactorily en route. Approaching the Mason City & Clear Lake Electric Railway crossing at Clear Lake Jct., located 3,325 feet south of the point of accident, the train was running at a speed of about 10 miles per hour. He then increased the speed and sounded one long blast of the whistle for the C. M. St. P. & P. crossing, located 4,082 feet beyond, over which the speed is restricted to 25 miles per hour, and acknowledged the interlocking signal with two short blasts. By this time he was in the vicinity of the point of curve south of the crossing involved, and as is customary he sounded the whistle signal for the private crossing. He had sounded two long blasts and one short blast and was sounding the last long blast as he reached the crossing and saw pieces of what appeared to be a truck flying up against the windshield. He closed the throttle and applied the air brakes in emergency and the train stopped with the front truck on the Milwaukee crossing. The automatic bell was ringing at the time of the accident and he estimated the speed of his train to have been between 20 and 25 miles per hour. Except for several flat wheels at various locations, very little damage was done the train.

Fireman Clements stated that he started the automatic bell before reaching Clear Lake Jct., and it rang continuously until after the accident. As soon as the train stopped he examined the gear shift of the bus and it appeared to him to be in high gear; the lever was in the right back corner. Fireman Clements further stated that the C. G. W. timetable restricted the speed of passenger trains to 15 miles per hour through Mason City, but he did not know the location of the southern limits of the city. He estimated the speed of his train at from 20 to 25 miles per hour at the time of accident.

Conductor O'Neil, of Train No. 508, stated that the speed was reduced to about 20 miles per hour when a train order was picked up at Clear Lake Jct. and he thought the speed was about 30 miles per hour just prior to the accident, stating that is the average speed through that territory, and he did not think that the speed restriction of 15 miles per hour in Mason City applied until they approached the public crossings. Flagman Voitel estimated the speed of their train to have been 15 miles per hour on passing Clear Lake Jct. and between 20 and 25 miles per hour at the time of the accident.

One of the students riding on the bus at the time of the accident stated that the bus was moving slowly but did not stop before proceeding upon the crossing and the bus was struck about at the driver's seat. Another student also stated that the bus did not stop before proceeding upon the crossing.

Leverman Williams, of the C. & N. W. Ry., on duty at the time of the accident in the tower located about 750 feet north of the crossing involved, stated that he witnessed the occurrence of the accident. The train was traveling about 25 miles per hour and the bus about 5 miles per hour, and he did not see the bus stop before proceeding upon the crossing. He stated that a daily average of about eight automobiles and four or five trucks use this crossing and to his knowledge there had never been a bus over this crossing until the day of the accident; the automobiles are those of the employees of the tile company and the trucks presumably belong to farmers who haul the clay products from the various plants to their farms.

C. F. Garland, Ceramic Engineer of the Mason City Brick & Tile Company, stated that he had been advised by the superintendent of his company that a bus of school children from Renwick, Ia., were to visit their plant about 1 p.m. on the day of the accident. The bus arrived about 3:15 p.m. and drove into Plant 3. This plant was closed for the day, however, and Engineer Garland took the party across to Plant 2. He drove his own car ahead of the bus and stopped at the C. G. W. crossing and again at the C. & N. W. crossing which is located approximately 90 feet farther east. After proceeding southward a short distance they recrossed the Northwestern tracks to enter Plant 2, and he stopped at this crossing also. While guiding the children and their teachers through the plant the south-bound Rock Island "Rocket" passed and he called their attention to this streamlined train and told them that a north-bound "Rocket" would pass in a very few minutes. After the students had boarded the bus he told the bus driver and the two teachers that they could take a different road from Plant 2, going out across the Milwaukee track and to Eighth Street Southwest, but the driver said that he did not know whether he could find his way out through that street. Engineer Garland then told him, if he went back the way he came in, to be careful and watch out for the "Rocket" as it was about due. He repeated this warning just before the bus started to leave.

M. K. Sperry, Superintendent of Schools at Renwick, was interviewed and it was learned that he had made arrangements for the students to visit the plants of the Mason City Brick & Tile Company, and while discussing the trip with Driver Simpson two days prior thereto, he called the driver's attention to the speed limit of 35 miles per hour for school busses and also cautioned him to stop before crossing railroad tracks. Mr. Simpson had

driven the school bus for a period of one year and as a result of satisfactory service his contract had been renewed for another year. The regular route of the bus covered about 22 miles in bringing the children to the Renwick school. Superintendent Sperry stated that he considered Simpson a very careful driver; he was 32 years of age and had an excellent reputation. In September, 1937, Mr. Simpson was examined by the Iowa Motor Vehicle Department as to his qualifications for a chauffeur's license, and as a result of this examination he was issued a chauffeur's license. On the day of the accident Driver Simpson went on duty at 7:30 a.m. and made his regular trip, after which he took the students to Mason City. This was Driver Simpson's first visit to the brick and tile plant.

#### Observations by the Commission's Inspectors

The bus was so badly damaged that little could be learned from an inspection of it; however, the Commission's inspectors, made an examination of the motor transmission and found it to be in second gear.

A test was made to determine the range of vision of an engineman seated in the cab of the power unit of the train. Directly ahead the nearest point that the top of the rail was visible was 71 feet 4.5 inches distant, and an object the height of the bus involved, 7 feet 2 inches, could not be seen by the engineman unless it was more than 25 feet 7 inches ahead of the power car. At an angle of 40° to the right the nearest point at which the ground was visible was 59 feet 6.5 inches distant, and at an angle of 45° to the right the view was obstructed by the corner of the cab.

The private road of the Mason City Brick & Tile Company, on which this accident occurred, was closed to traffic shortly after the occurrence of the accident and had not been reopened at the time of the Commission's investigation. Reliable information, however, was received that the daily average travel over the crossing involved would not exceed 20 vehicles.

#### Discussion

The evidence disclosed that the school bus was on its way out of the brick and tile plant at the time of the accident and that before leaving Plant 2 the driver had been warned several times that the north-bound "Rocket" was about due. In driving through the grounds of this company the bus had been over the crossing involved a short time previously with an employee of the Mason City Brick & Tile Company, who was acting as a guide through the plant, preceding the bus in his own automobile.



On this trip stops were made at the crossing involved and also at crossings of the Northwestern Railroad located east of the C. G. W. track. Driver Simpson also had been warned by the Superintendent of Schools of Renwick before making this trip to stop before crossing railroad tracks, and a law of the State of Iowa requires the driver of a school bus to stop within 50 feet of but not less than 10 feet from the nearest rail of any railroad which is to be crossed at grade.

The private crossing involved was an exceedingly dangerous one; the view of approaching north-bound trains was completely obstructed by a pile of tiling which bordered the highway on the south and extended to within 15 feet of the rail. The driver's seat in the school bus was 8 feet from the front bumper so that a stop which would have permitted the driver to see the approaching train would have placed the front end of the bus within 7 feet of the rail, too close for safety. It appears from the evidence that in spite of these warnings and requirements the driver did not stop but proceeded upon the crossing at low speed; as the driver was killed in the accident it could not be determined why he failed to stop before proceeding upon the crossing.

The evidence indicates that several whistle signals had been sounded by No. 508 after passing Clear Lake Jet., located 3,325 feet south of the crossing, and the crossing whistle signal was being sounded at the time of the accident; also the bell had been ringing continuously since leaving Clear Lake Jet.

Special instructions contained in the C.G.W. timetable restrict the speed of passenger trains to 15 miles per hour through Mason City. At the time of the accident No. 508 was traveling at a speed estimated at between 20 and 30 miles per hour, and according to the statements of the conductor a speed of 30 miles per hour is the average rate in that territory. As the point of accident was within the corporate limits of Mason City it appears that the train was being operated at a speed in excess of the timetable restriction; the statements of the crew of No. 508 indicated that they did not have a clear understanding as to the limits within which this restriction applied.

#### Conclusion

This accident was caused by a school bus being driven upon a private road crossing directly in front of an approaching train.

Respectfully submitted,

W. J. PATTERSON,

Director.